

The characteristic polynomial ([acronymref](#)|definition|CP>) is

$$\begin{aligned}
 p_B(x) &= \det(B - x I_2) \\
 &= \begin{vmatrix} 2-x & -1 \\ -1 & 1-x \end{vmatrix} \\
 &= (2-x)(1-x) - (1)(-1) \text{ ([acronymref](#)|theorem|DMST)} \\
 &= \left(x - \frac{3+3i}{2}\right) \left(x - \frac{3-3i}{2}\right)
 \end{aligned}$$

where the factorization can be obtained by finding the roots of $p_B(x) = 0$ with the quadratic equation. By [acronymref](#)|theorem|EMRCP the eigenvalues of B are the complex numbers $\lambda_1 = \frac{3+3i}{2}$ and $\lambda_2 = \frac{3-3i}{2}$.

El polinomio característico ([acronymref](#)|definition|CP) es

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donde la factorización puede ser obtenida encontrando las raíces de $p_B(x) = 0$ con la ecuación cuadrática. Por [acronymref](#)|theorem|EMRCP los eigenvalores de B son los numeros complejos $\lambda_1 = \frac{3+3i}{2}$ and $\lambda_2 = \frac{3-3i}{2}$.

Contributed by Robert Beezer

Contribuido por Robert Beezer

Traducido por Felipe Pinzón